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BOSTON UNIVERSITY
SCHOOL OF EDUCATION

Thesis

A STUDY OF COMMERCIAL EDUCATION
IN THE PUBLIC JUNIOR AND SENIOR
HIGH SCHOOLS IN RHODE ISLAND

Submitted by

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(B. B. A., Boston University, 1923)

In partial fulfillment of requirements for the
degree of Master of Education

1934

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Harold Alton Wiggin

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CHAPTER I

INTRODUCTION

Purpose of the Study

Foresighted and progressive commercial teachers have known for some time that the courses and subject content of the commercial curriculum are not meeting the needs of the pupils beyond certain restricted limitations.

These teachers recognize the need of bringing the objectives of commercial education into closer harmony with general objectives of education, the possibilities that the commercial curriculum offer for establishing utilitarian and social courses, and the very evident need for the reorganization of the curriculum to accomplish these aims.

An initial step in the reorganization of the commercial curriculum is to examine the commercial programs now used in the various schools of the State. It is the purpose of this study to present the status of commercial education in the State of Rhode Island. Possibly many valuable and interesting details of commercial education are not included, since the study has been delimited in order that the material presented may be confined to the definite objectives of the problem.

The study presents the enrolment of all the senior and junior high schools offering commercial subjects and the percentage of these pupils who are taking commercial courses, the number of commercial pupils graduated, and

the number entering higher schools; the standards and efficiency of instruction as measured by the organization and administration of the department, the preparation of the commercial teachers, their teaching experience, business experience, and professional improvement; a list of the commercial subjects offered, the time allotted to each, the school year in which it is offered and the objective; the guidance and placement that is functioning for graduates and drop-outs; and the results of the training as now offered when applied to actual business conditions.

Method of Procedure

The material for the study was obtained by making personal visits to all of the public high schools in the State. A list of questions in the form of a questionnaire was submitted to principals, department heads and commercial teachers in the course of personal interviews during the visits to the schools. A second questionnaire was used to gather the material for the chapter on occupational statistics. A group of 47 representative business concerns were visited and the questionnaires were filled out during the course of personal interviews. At all times accuracy was stressed and insofar as records and facilities of the schools and business concerns permitted this standard was maintained.

The data collected in the questionnaires are correlated and presented in the following chapters.

CHAPTER II

CLASSIFICATION OF SCHOOLS

Senior High Schools

There are 22 public senior high schools listed in the Rhode Island Education Directory for 1933 compiled by the Commissioner of Education. Nineteen of these schools offer a commercial curriculum of sufficient strength to be included in this study. One school offering one commercial subject on alternate years and another offering one subject of junior high grade are not included, the amount of work offered not being sufficient to have any bearing upon the results of the study. The third school, Classical High School of Providence, does not offer commercial subjects. It is included in the figures for total enrolment in order that the correct percentage of pupils taking the commercial curriculum in Providence may be found.

The 19 schools offering a commercial curriculum are grouped in three classes, as follows: 9 three-year schools, 7 four-year schools and 3 six-year schools.

The classification and enrolment of all schools and the total enrolment of commercial pupils are shown in Table I. There are 9,135 boys and 8,774 girls, making a total of 17,909 pupils, enrolled in all courses in the 20 schools used for obtaining these figures. The 10 three-year schools have 71 per cent., the 7 four-year schools have 18.5 per cent., and the 3 six-year schools

have 10.5 per cent. of all the pupils enrolled in all the schools included in the study.

In the 19 schools offering a commercial curriculum there are 2,084 boys and 4,588 girls, a total of 6,672 commercial pupils. These 6,672 commercial pupils represent 37 per cent. of all the pupils enrolled in the 20 schools. The three-year schools enroll 27.5 per cent., the four-year schools enroll 7 per cent. and the six-year schools enroll 2.5 per cent. of the 37 per cent. Of the 37 per cent. 11.5 per cent. are boys and 25.5 per cent. are girls. The distribution of the 11.5 per cent. representing boys to the three classes of schools shows that the three-year schools enroll 8.5 per cent., the four year schools 2 per cent., and the six-year schools 1 per cent. A like distribution for the 25.5 per cent. representing girls shows that the three-year schools enroll 19 per cent., the four-year schools 5 per cent., and the six-year schools 1.5 per cent.

TABLE I. CLASSIFICATION AND ENROLMENT OF HIGH SCHOOLS

	All Pupils			Commercial Pupils					
	Total	Boys	Girls	Total	Per Cent	Boys	Per Cent	Girls	Per Cent
All Schools	17,909	9,135	8,774	6,672	#37	2,084	11.5	4,588	25.5
3-Year Schools	12,729	6,519	6,210	4,987	27.5	1,544	8.5	3,443	19
4-Year Schools	3,343	1,688	1,655	1,224	7	341	2	883	5
6-Year Schools	1,837	928	909	461	2.5	199	1	262	1.5

TABLE I (Continued). CLASSIFICATION AND ENROLMENT
OF HIGH SCHOOLS

Percentages figured to nearest .5 per cent. in all tables.

Table II shows the number and percentage of boys and girls enrolled in the commercial curriculum in all the schools and in each class of school.

Of the 6,672 commercial pupils 2,084, representing 31 per cent., are boys and 4,588, 69 per cent., are girls. In the three-year schools 31 per cent. of all the commercial pupils are boys and 69 per cent. are girls. In the four-year schools 28 per cent. of all the commercial pupils are boys and 72 per cent. are girls. In the six-year schools 43 per cent. of all the commercial pupils are boys and 57 per cent. are girls.

TABLE II. NUMBER AND PERCENTAGE OF BOYS AND GIRLS
ENROLLED IN COMMERCIAL STUDIES IN THREE-YEAR,
FOUR-YEAR, AND SIX-YEAR HIGH SCHOOLS

	Total	Per Cent	Boys	Per Cent	Girls	Per Cent
All Schools	6,672	100	2,084	31	4,588	69
3-Year Schools	4,987	100	1,544	31	3,443	69
4-Year Schools	1,224	100	341	28	883	72
6-Year Schools	461	100	199	43	262	57

Table III shows the number and percentage of boys and girls in the commercial curriculum compared to the boys and girls enrolled in all courses.

There are 9,135 boys enrolled in all curricula in all the schools and 23 per cent. of these boys are taking the commercial curriculum. Twenty-three and five-tenths per cent. of all the boys in the three-year schools take the commercial curriculum; 20 per cent. of all the boys in the four-year schools take the commercial curriculum; and 21.5 per cent. of all the boys in the six-year schools take the commercial curriculum.

There are 8,774 girls enrolled in all curricula in all the schools, and 52 per cent. of these girls are taking the commercial curriculum. In the three-year schools 55.5 per cent of all the girls are taking the commercial curriculum; in the four-year schools 53.5 per cent. of all the girls are enrolled in the commercial curriculum; and in the six-year schools 29 per cent. of all the girls are enrolled in the commercial curriculum.

Table IV shows the number of boys and girls enrolled in commercial studies distributed by classes.

Of all the pupils enrolled in commercial studies in the 19 schools 8 per cent. are in the ninth grade, 49 per cent. are in the tenth grade, 24.5 per cent. are in the eleventh grade, and 18.5 per cent. are in the twelfth grade. Only 7 schools, (5 of the four-year

TABLE III. COMPARISON OF THE NUMBER AND PERCENTAGE
OF BOYS AND GIRLS ENROLLED IN THE COMMERCIAL
CURRICULUM TO TOTAL BOYS AND GIRLS
ENROLLED IN ALL CURRICULA

	Total Enrolm't Boys	Commercial Enrolment Boys	Per Cent	Total Enrolm't Girls	Commercial Enrolment Girls	Per Cent
All Schools	9,135	2,084	23	8,774	4,588	52
3-Year Schools	6,519	1,544	23.5	6,210	3,443	55.5
4-Year Schools	1,688	341	20	1,655	883	53.5
6-Year Schools	928	199	21.5	909	262	29

and 2 of the six-year schools), offer commercial studies in the ninth grade. These percentages represent in actual numbers 526 pupils in the ninth grade, 3,263 pupils in the tenth grade, 1,647 pupils in the eleventh grade, and 1,236 pupils in the twelfth grade. There were 863 commercial pupils graduated in June 1932.

Added to the 37 per cent. of all high school pupils, which make up the commercial pupils enrolled in the senior high schools, 8 schools reported an additional 705 pupils, (421 boys and 284 girls), who are enrolled in academic courses, electing one or more commercial subjects.

The 18 senior high schools reported a total of 2,321 pupils graduating from all courses and 863, or

TABLE IV. NUMBER OF BOYS AND GIRLS ENROLLED IN
COMMERCIAL STUDIES DISTRIBUTED BY GRADES

	Ninth Grade				Tenth Grade			
	Total	Per Cent	Boys	Girls	Total	Per Cent	Boys	Girls
All Schools	526	8	204	322	3,263	49	1,178	2,085
3-Year Schools					2,728		1,000	1,728
4-Year Schools	380		134	246	378		101	277
6-Year Schools	146		70	76	157		77	80

	Eleventh Grade				Twelfth Grade			
	Total	Per Cent	Boys	Girls	Total	Per Cent	Boys	Girls
All Schools	1,647	24.5	457	1,190	1,236	18.5	245	991
3-Year Schools	1,255		346	909	1,004		198	806
4-Year Schools	294		76	218	172		30	142
6-Year Schools	98		35	63	60		17	43

37 per cent., graduating from the commercial course.

The total number of pupils graduating represents 13 per cent. of all the pupils enrolled in the senior high schools.

Eleven schools reported 78 pupils entering higher schools, but only 7 of the 11 schools had any kind of a record of the type of school entered. These records were based on applications for a transcript of records from the school or college to which the pupil had applied

for admission. In the absence of any proof that the pupils had been admitted and had entered the schools the figures do not seem of sufficient value to be included in the study.

Junior High Schools

There are 18 public junior high schools listed in the Rhode Island Education Directory for 1933 with a total enrolment of 17,951 pupils. Of this number 9,045 are boys and 8,906 are girls. There are 2,387 boys and

TABLE V. ENROLMENT OF JUNIOR HIGH SCHOOLS WITH A COMPARISON OF THE NUMBER AND PERCENTAGE OF BOYS AND GIRLS IN THE COMMERCIAL CURRICULUM, AND THE BOYS AND GIRLS ENROLLED IN THE COMMERCIAL CURRICULUM TO THE TOTAL BOYS AND GIRLS ENROLLED IN ALL CURRICULA

Total	Boys	Girls	Commercial Total	Per Cent	Boys	Per Cent	Girls	Per Cent
17,951	9,045	8,906	5,832	32.5	2,387	13.5	3,445	19
			5,832	100	2,387	41	3,445	59
	9,045				2,387	26.5		
		8,906					3,445	38.5

3,445 girls taking commercial studies. These 5,832 pupils represent 32.5 per cent. of the total enrolment of the junior high schools. Of this 32.5 per cent. 13.5 per cent. are boys and 19 per cent. are girls.

The 2,387 boys represent 41 per cent. and the 3,445 girls represent 59 per cent. of the commercial pupils in the junior high schools.

Table V shows that 26.5 per cent. of all the boys enrolled in the junior high schools are enrolled in commercial studies, and 38.5 per cent. of all the girls enrolled in junior high schools are commercial pupils.

Summary

Approximately one-third of the pupils enrolled in the senior high schools in Rhode Island are taking the commercial curriculum. Approximately one of every four boys in the senior high schools is enrolled as a commercial pupil, and approximately one of every two girls in the senior high schools is enrolled as a commercial pupil.

Approximately one-third of the junior high school pupils take commercial studies. The percentage of pupils taking commercial studies in the junior high schools varies with that of the senior high schools in that more boys and fewer girls take the commercial work. Approximately one out of every four boys enrolled in junior high schools is taking commercial studies, while approximately one out of every three girls is taking commercial studies.

CHAPTER III

COMMERCIAL DEPARTMENT ORGANIZATION

The data presented in this section are concerned with the preparation of the commercial teachers, their professional improvement, teaching experience, business experience, and teaching load; and the organization and administration of the commercial departments.

Senior High Schools - Teacher Statistics

There are 663 public senior high school teachers in the 19 schools surveyed. Three hundred and seventy-eight, or 57 per cent., of these are women and 285, or 43 per cent., are men. There are 106 full-time commercial teachers, representing 16 per cent. of all high school teachers. Of this number 80, or 75.5 per cent., are women and 26, or 24.5 per cent., are men. Eight women and 3 men teach non-commercial subjects in addition to the commercial subjects. These 11 teachers represent 10.5 per cent. of all commercial teachers. Eighteen academic teachers, (6 women and 12 men), teach one or more commercial subjects.

Table VI classifies the training of the full-time commercial teachers by the type of school and the number of years attended, showing the number and percentage in each. Table VII classifies the degrees held by commercial teachers by the type of school awarding the degree, showing the number and percentage in each.

The 106 full-time commercial teachers received

TABLE VI. TRAINING OF SENIOR HIGH SCHOOL
COMMERCIAL TEACHERS

	All Teachers	Per Cent	Women	Per Cent	Men	Per Cent
	106	100	80	75.5	26	24.5
COLLEGE						
Four Year	47	44	32	30	15	14
Three Year	5	5	2	2	3	3
Two Year	3	3	3	3		
One Year	1	1			1	1
NORMAL SCHOOL						
Four Year	2	2	2	2		
Three Year	2	2	1	1	1	1
Two Year	8	7.5	8	7.5		
One Year	2	2	1	1	1	1
BUSINESS SCHOOL						
Four Year	1	1	1	1		
Three Year	3	3	3	3		
Two Year	28	26	23	21.5	5	4.5
One Year	4	3.5	4	3.5		

TABLE VII. THE QUALIFICATIONS AND EARNED DEGREES
OF SENIOR HIGH SCHOOL COMMERCIAL TEACHERS

	Total	Per Cent	Women	Per Cent	Men	Per Cent
All Commercial Teachers	106	100	80	75.5	26	24.5
Master's Degree	9	8.5	8	7.5	1	1
Bachelor's Degree	53	50	36	34	17	16
College	37	35	23	22	14	13
Normal School	1	1	1	1		
Business School (two-year)	15	14	12	11	3	3
No Degree	44	41.5	36	34	8	7.5

their training in three types of schools; i. e., colleges, normal schools, and business schools. Fifty-six teachers,

(37 women and 19 men), representing 53 per cent. of all commercial teachers, received their training in colleges. Eight of the 37 women have a master's degree, and 23 of the 37 women have a bachelor's degree. Of the other 6 women teachers 1 completed four years of college work but did not receive a degree, 2 completed three years of college work, and 3 completed two years of college work. One of the 19 men holds a master's degree, and 14 of the 19 men have a bachelor's degree. Of the other 4 men, 3 completed three years of college work and 1 completed one year of college work.

Fourteen teachers, (12 women and 2 men), representing 13.5 per cent. of all commercial teachers, received their training in normal schools. Of these 12 women who received their training in normal schools 2 completed four years of work, 1 completed three years of work, 8 completed two years of work, and 1 completed one year of work. One of the 2 women completing four years of normal school work holds a bachelor's degree. Of the 2 men who received their training in normal school 1 completed three years of work and 1 completed one year of work.

Thirty-six teachers, (31 women and 5 men), representing 33.5 per cent. of all commercial teachers, received their training in business schools. Twenty-seven of these women took the two-year course. Three of these 27 women supplemented their training with one additional

year of work, and 1 with two additional years of work. Twelve of the 27 women have a bachelor's degree. The other 4 of these 31 women received only one year of business school training. All of the 5 men received their training in two-year business schools, and 3 have a bachelor's degree.

Of the 44 teachers, (36 women and 8 men), who do not hold a degree 38 have as much or more training than the holders of the two-year business school degree.

Thirty-two teachers, representing 30 per cent. of the 106 commercial teachers, are taking courses for professional improvement. Eleven of these 32 teachers, (4 women and 7 men), are working for a master's degree and 21, (17 women and 4 men), are working for a bachelor's degree.

Only 1 of the commercial teachers appointed in the senior high schools this year was inexperienced. One school requires one year of business experience and 1 school indicated that it is preferred. There are 12 schools which require four years of training beyond high school, and 1 which requires three years of training beyond high school. The other 6 schools did not indicate any requirements.

The number of years of teaching experience required of newly appointed teachers was given by 8 schools only; 1 school requires three years, 3 require two years, and 4 require one year, while 1 school stated that two

years are preferred.

Forty of the women teachers and 14 of the men teachers have been teaching five years or more. Twenty-nine women and 8 men have from one-half a year to four years of teaching experience. Records giving the teaching experience of 14 teachers were not available.

Fifty-one teachers had at least one year of business experience. Eighty-four, representing 79 per cent. of the commercial teachers, have studied commercial subjects.

Table VIII shows a comparison of the periods and

TABLE VIII. COMPARISON OF THE PERIODS AND CLOCK HOURS
TAUGHT BY SENIOR HIGH SCHOOL COMMERCIAL TEACHERS

Number of Teachers	Periods Teaching	Number of Teachers	Clock Hours Teaching
Total 106	Average 25.4 Mode 25	Total 106	Average 21.2 Mode 21
1	10	1	7
9	21	14	17
1	23	1	18
4	24	6	19
70	25	9	20
3	27	47	21
3	28	4	23
13	30	1	24
2	35	19	25
		2	26
		2	28

clock hours taught by the senior high school commercial teachers. It is evident that only 4 teachers are carrying

a teaching load of more than five hours a day.

Fourteen schools have a head of the commercial department and 5 schools do not have a department head. Advice regarding the commercial department in the 5 schools not having a department head is given by the principal in 4 schools and the senior commercial teacher in the other one. The head of the commercial department supervises the work in 6 schools, the principal of the school in 6 schools, and the head of the department and the principal in the other 7.

Nine of the schools are in 6-3-3 systems, 7 are in 8-4 systems, and 3 are in 6-6 systems.

Homogeneous grouping is found in 10 of the schools with 1 limiting it to the 7th and 8th grades only (six-year school), 1 in the 9th and 10th grades only (four-year school), and 1 in the 10th grade only (three-year school). Five schools have special plans of organization; 1 uses the unit plan, 1 the contract and unit plan, 1 the unit plan in office practice and bookkeeping, 1 the unit plan in the commercial department only, and 1 the unit plan in some classes.

Eight schools indicated that they permit all pupils to elect all subjects regardless of scholastic ability, but 4 of these modified this by stating there were limitations. Eleven do not permit all pupils to elect all subjects regardless of scholastic ability, and 1 of these indicated that their decision would be reversed

if pressure were brought to bear by parents. The standards are as high for commercial pupils as for academic pupils in 14 schools, but 4 of these schools have a different subject content for commercial pupils. The standards are not as high for commercial pupils as for academic pupils in 5 schools, and 2 of these schools have a different subject content for commercial pupils.

Only 5 of the 19 schools subdivide their commercial curriculum. Three schools have a two-way curriculum of bookkeeping and stenographic training, 1 school has a two-way curriculum of stenography and business management, and 1 school has a three-way curriculum of bookkeeping, stenography and clerical training.

Junior High Schools - Teacher Statistics

The 18 public junior high schools in the State of Rhode Island have 695 teachers. Five hundred and forty-four are women and 151 are men. There are 44 commercial teachers, representing 6.5 per cent. of all the junior high school teachers. Of these 44 teachers 39, or 88.5 per cent., are women and 5, or 11.5 per cent., are men. Eleven teachers, (8 women and 3 men), representing 25 per cent. of all junior high school commercial teachers, are teaching one or more non-commercial subject. Eleven academic teachers, all women, are teaching one or more commercial subject.

Table IX classifies the training of the junior high

TABLE IX. TRAINING OF JUNIOR HIGH SCHOOL
COMMERCIAL TEACHERS

	All Teachers	Per Cent	Women	Per Cent	Men	Per Cent
	44	100	39	88.5	5	11.5
COLLEGE						
Four Year	12	27	8	18	4	9
Three Year	1	2.5	1	2.5		
NORMAL SCHOOL						
Four Year	4	9	4	9		
Three Year	6	13.5	6	13.5		
Two Year	11	25	11	25		
One Year	2	4.5	2	4.5		
BUSINESS SCHOOL						
Three Year	1	2.5	1	2.5		
Two Year	5	11.5	4	9	1	2.5
One Year	2	4.5	2	4.5		

school commercial teachers by the type of school and the number of years attended, showing the number and percentage in each.

TABLE X. THE QUALIFICATIONS AND EARNED DEGREES OF
JUNIOR HIGH SCHOOL COMMERCIAL TEACHERS

	Total	Per Cent	Women	Per Cent	Men	Per Cent
All Commercial Teachers	44	100	39	88.5	5	11.5
Bachelor's Degree	20	45.5	16	36.5	4	9
College	12	27	8	18	4	9
Normal School	4	9	4	9		
Normal School (Two-year)	1	2.5	1	2.5		
Business School (Two-year)	3	7	3	7		
No Degree	24	54.5	23	52	1	2.5

Table X classifies the degrees held by junior high school commercial teachers by the type of school awarding the degree, showing the number and percentage in each.

The 44 junior high school commercial teachers received their training in colleges, normal schools and business schools.

Thirteen teachers, (9 women and 4 men), representing 29.5 per cent. of all the commercial teachers, received their training in colleges. Eight of the nine women have a bachelor's degree. The woman who does not have a degree completed three years of college work. All of the 4 men have a bachelor's degree.

Twenty-three women teachers, representing 52 per cent. of all commercial teachers, received their training in normal schools. Four of these teachers have a bachelor's degree. Of the other 19 teachers 6 completed three years of normal school training, 11 completed two years of normal school training, and 2 completed one year of normal school training. One of the 2 teachers completing two years of normal school has a bachelor's degree awarded for two years of work.

Eight teachers, (7 women and 1 man), representing 18.5 per cent. of all the commercial teachers, received their training in business schools. One of these 7 women teachers completed three years of business school training. Four of these women teachers completed two years

of business school training, and 3 of them have a bachelor's degree. The other 2 women completed one year of business school training. The man teacher completed two years of business school training.

The 20 teachers having a bachelor's degree represent 45.5 per cent. of all the junior high school commercial teachers.

Sixteen of the 44 junior high school commercial teachers are taking courses for professional improvement. Five of these teachers, (3 women and 2 men), are working for a master's degree and the other 11, (10 women and 1 man), are working for a bachelor's degree.

In the junior high schools only 1 inexperienced commercial teacher was appointed this year. One school requires one year of business experience. Seventeen of the 18 junior high schools require post high school training of their teachers. Twelve require four years and 5 require two years.

The number of years of teaching experience required was given by 10 schools; 8 require one year and 2 require two years.

Eleven teachers had at least one year of business experience, and 9 of the teachers who did not receive their training in business schools indicated that they had taken commercial courses.

Table XI shows a comparison of the periods and

of various other things, and it is the only one of its kind in the world. The first of these is the fact that it is the only one of its kind in the world. The second is the fact that it is the only one of its kind in the world. The third is the fact that it is the only one of its kind in the world.

The first of these is the fact that it is the only one of its kind in the world. The second is the fact that it is the only one of its kind in the world. The third is the fact that it is the only one of its kind in the world.

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The first of these is the fact that it is the only one of its kind in the world. The second is the fact that it is the only one of its kind in the world. The third is the fact that it is the only one of its kind in the world.

clock hours taught by junior high school commercial teachers. It is evident that only 2 teachers carry a teaching load of over 25 hours a week.

TABLE XI. COMPARISON OF THE PERIODS AND CLOCK HOURS
TAUGHT BY JUNIOR HIGH SCHOOL COMMERCIAL TEACHERS

Number of Teachers	Periods Teaching	Number of Teachers	Clock Hours Teaching
Total 44	Average 25.7 Mode 24	Total 44	Average 21.4 Mode 20
1	16	1	16
20	24	2	19
10	25	20	20
4	26	5	21
2	27	5	22
2	32	2	23
4	33	1	24
1	34	6	25
		2	26

None of the junior high schools has a director or head of the commercial department. In the 8 Providence junior high schools the teachers elect a chairman who gives advice regarding the commercial department. In the other 10 schools advice regarding the commercial department is given in 5 schools by the principal, in 3 schools by the dean and supervisor of the 8th and 9th grades, and in 2 schools by the senior commercial teacher. The department is supervised in 13 schools by the principal, in 3 schools by the principal and dean, in 1 school by the principal and senior commercial teacher, and in 1

school by the vice-principal.

All of the junior high schools are in 6-3-3 systems. All of the junior high schools have homogeneous grouping; 16 in all grades, 1 in the 7th grade, grouping by electives in the 8th and 9th grades, and 1 in the 7th and 8th grades, grouping by electives in the 9th grade. Special plans of organization are found in only 3 schools. Two schools use the unit plan and 1 school a modified Dalton plan.

Three schools permit all pupils to elect all subjects regardless of scholastic ability, and 15 do not permit them to elect all subjects. If the pupil insists 3 of these 15 schools will permit them to take the subject desired and 1 school will permit the pupil to take the subject desired if parents object. The standards are as high for commercial pupils as for academic pupils in 12 schools and are not as high in 6 schools.

Summary

It is apparent that the Rhode Island senior and junior high school commercial teachers are accepting and meeting higher standards of professional preparation; with 8.5 per cent. of the senior high school commercial teachers holding a master's degree and 36 per cent. holding a bachelor's degree from a four-year college or normal school, and 36 per cent. of the junior high school commercial teachers holding a bachelor's degree from a

four-year college or normal school.

As far as school population will allow most of the schools are following the latest trends and practices in regard to grouping pupils for instructional purposes. Nine of the 18 school systems operate on the 6-3-3 plan. If the systems having six-year high schools and those not having an enrolment large enough to support a junior high school are eliminated, it will be found that there are not more than 3 systems left in which to introduce the junior high school type of instruction.

CHAPTER IV

SUBJECTS COMPRISING THE COMMERCIAL CURRICULUM

The aim of this section of the study is to make an appraisal of each subject offered in the commercial curricula of the 19 senior high schools and the 18 junior high schools relative to the school year in which the subject is offered, the number of years it is offered, the number of recitation periods a week, the length of the recitation periods in minutes, and the achievement aim or objective of the subject.

Senior High Schools

Only 3 subjects, bookkeeping, shorthand, and typewriting, are offered in all of the 19 schools. Commercial Law is offered in 18 schools. Commercial Arithmetic, Commercial Geography, and Office Practice are offered in 14 schools. Economics is offered in 8 schools. This group comprises the commercial subjects most commonly taught.

Table XII summarizes the commercial subjects offered in the senior high schools, giving the number of schools offering the subject and the years in which it is offered.

Table XIII lists the 22 subjects offered in the senior high school commercial curricula, the number of schools offering the subject, the length of the course in years, the length of the class periods in minutes, and the number of periods a week in which it is offered.

TABLE XII. SUMMARY OF THE COMMERCIAL SUBJECTS OFFERED
IN THE SENIOR HIGH SCHOOLS

	Total Schools	Per Cent	Years taught							
			Ninth		Tenth		Eleventh		Twelfth	
Number of Semesters taught			1	2	1	2	1	2	1	2
BOOKKEEPING										
First Year	19	100				17		2		
Second Year	19	100						17		2
Third Year	6	31.5							1	5
SHORTHAND										
First Year	19	100				5		14		
Second Year	19	100						5		14
Third Year	2	10.5								2
TYPEWRITING										
First Year	19	100	1	1	1	5		11 ^e		
Second Year	19	100				2		6		11 ^e
Third Year	6	31.5						2		4
Fourth Year	1	5								1
COMMERCIAL LAW	18	94.5			1		4	1	7 ^a	5
COMMERCIAL ARITHMETIC										
First Year	14	73.5		7	2	4		1		
Second Year	2	10.5					1	1		
COMMERCIAL GEOGRAPHY	14	73.5	1		2	5	2	1	3	
OFFICE PRACTICE	14	73.5				1	1		4 ^d	8
ECONOMICS	8	42					2		3 ^a	3
SALESMANSHIP	5	27					1	2 ^b	1	1
ACCOUNTING	4	21							1	3
BUSINESS TRAINING	5	27	4	1						
BUSINESS ENGLISH	4	21			1			1	1	1
BUSINESS ORGANIZATION AND MANAGEMENT										
First Year	4	21				1	1		1	1
Second Year	1	5						1		
Third Year	1	5								1
MACHINE OPERATION										
First Year	3	16			1 ^c			1	1	
Second Year	1	5								1
PENMANSHIP	3	16	1		1	1				
BUSINESS PRACTICE	2	10.5							1	1
FILING	2	10.5			1 ^c				1	
INDUSTRIAL HISTORY	2	10.5				1				1
ADVERTISING	1	5							1	
COMMERCIAL ART	1	5								1

TABLE XII. (CONTINUED) SUMMARY OF THE COMMERCIAL
SUBJECTS OFFERED IN THE SENIOR HIGH SCHOOLS

	Total Schools	Per Cent	Years taught							
			Ninth		Tenth		Eleventh		Twelfth	
Number of Semesters taught			1	2	1	2	1	2	1	2
CONSUMER'S EDUCATION										
First Year	1	5						1		
Second Year	1	5								1
TRANSCRIPTION	1	5								1

^aOne School combines Commercial Law (26 weeks) and Economics (13 weeks).

^bRequired by 1 school of Business Management pupils in the 11th year and Secretarial pupils in the 12th year.

^cOne school combines Machine Operation (10 weeks) and Filing (10 weeks).

^dOne school has a double period.

^eTwo schools have double periods.

TABLE XIII. LENGTH OF SENIOR HIGH SCHOOL
COMMERCIAL COURSES

Subject	Total	Schools Reporting	Length of course Years	Length of periods Minutes	Number of Periods a week by years		
					First	Second	Third
Accounting	4	1	1	60	5		
		1	1	55	3		
		1	1	40	5		
		1	1/2	50	5		
Bookkeeping	19	1	3	60	5	5	5
		1	3	60	4	4	4
		2	3	50	5	5	5
		1	3	50	4	4	4
		1	3	40	5	5	5
		2	2	60	4	4	
		1	2	55	4	4	
		2	2	50	5	5	
		1	2	47	4	3	
		3	2	45	5	5	
		1	2	45	5	4	
		3	2	40	5	5	
Advertising	1	1	1/2	50	5		
Business English	4	1	1	60	4		
		1	1	45	3		
		1	1/2	45	5		
		1	1/2	40	5		
Business Organization and Management	4	1	3	55	4	4	5
		1	1	47	5		
		1	1/2	50	5		
		1	1/2	40	5		
Business Practice	2	1	1	55	2		
		1	1/2	40	5		
Business Training	5	1	1	60	4		
		2	1/2	50	5		
		2	1/2	40	5		

TABLE XIII. (CONTINUED) LENGTH OF SENIOR HIGH SCHOOL
COMMERCIAL COURSES

Subject	Total	Schools Reporting	Length of course Years	Length of periods Minutes	Number of Periods a week by years		
					First	Second	Third
Commercial Arithmetic	14	1	2	60	5	5	
		1	1	60	4		
		4	1	50	5		
		1	1	50	4		
		2	1	45	5		
		1	1	45	4		
		2	1	40	5		
		1	1	47	2		
		1	1/2	60	4		
Commercial Art	1	1	1	45	2		
Commercial Geography	14	2	1	60	4		
		1	1	40	5		
		1	1	60	3		
		1	1	40	4		
		1	1	45	3		
		3	1/2	50	5		
		2	1/2	45	5		
		2	1/2	40	5		
		1	1/2	45	4		
Commercial Law	18	1	1	60	4		
		1	1	60	3		
		1	1	45	5		
		1	1	55	3		
		1	1	47	2		
		1	1	40	2		
		4	1/2	50	5		
		1	2/3	45	5		
		2	1/2	45	5		
		2	1/2	45	4		
		3	1/2	40	5		
Consumers' Education	1	1	2	50	5	5	

TABLE XIII. (CONTINUED) LENGTH OF SENIOR HIGH SCHOOL
COMMERCIAL COURSES

Subject	Total	Schools Reporting	Length of course Years	Length of periods Minutes	Number of Periods a week by years		
					First	Second	Third
Economics	8	1	1	60	4		
		1	1	60	3		
		1	1	55	3		
		3	1/2	50	5		
		1	1/2	60	4		
		1	1/3	45	5		
Filing	2	1	1/2	50	5		
		1	1/4	55	3		
Industrial History	2	1	1	40	5		
		1	1	55	3		
Machine Operation	3	1	2	50	5	5	
		1	1/4	60	4		
		1	1/2	60	2		
Office Practice	14	1	1	60	5		
		1	1	60	4		
		1	1	50	5		
		2	1	40	5		
		1	1	47	2		
		1	1	55	3		
		1	1	45	2		
		1	1/2	60	4		
		1	1/2	50	4		
		1	1/2	45	5		
		1	1/2	45	4		
		1	1/2	40	10		
		1	1/2	40	3		
Penmanship	3	1	1	47	2		
		1	1/2	40	5		
		1	1/2	50	2		
Salesmanship	5	1	1	60	4		
		1	1	60	2		
		1	1	55	3		
		2	1/2	60	4		

TABLE XIII. (CONTINUED) LENGTH OF SENIOR HIGH SCHOOL
COMMERCIAL COURSES

Subject	Total	Schools Reporting	Length of course Years	Length of periods Minutes	Number of Periods a week by years		
					First	Second	Third
Shorthand	19	1	3	60	5	5	5
		1	3	47	2	5	5
		3	2	60	4	4	
		1	2	55	3	5	
		4	2	50	5	5	
		1	2	50	4	4	
		4	2	45	5	5	
		4	2	40	5	5	
Transcription	1	1	1	55	6		
Typewriting	19	1	3½	50	5	5	5
		1	3	60	5	5	5
		1	3	45	5	5	5
		1	3	40	5	5	5
		1	3	47	4	5	4
		1	2½	50	5	5	
		3	2	60	4	4	
		1	2	45	8	8	
		1	2	55	4	5	
		1	2	50	10	5	
		1	2	50	4	8	
		2	2	45	5	5	
		1	2	50	4	4	
		3	2	40	5	5	

BOOKKEEPING is offered in all of the 19 schools. In 8 of the schools vocational efficiency is stated as the objective. Six schools have pre-vocational training as the objective in the beginning course and vocational efficiency for the advanced courses, and 5 schools have pre-vocational training as the objective for the entire course. Thirteen schools offer two years of bookkeeping, and 6 schools offer three years. Bookkeeping is begun by 17 schools in the 10th year and by 2 schools in the 11th year.

SHORTHAND is offered in 19 schools. Eighteen schools have vocational efficiency as the objective of the course and 1 school has pre-vocational training. Seventeen schools offer two years of shorthand and 2 schools offer three years. One of the 17 schools offering two years of shorthand offers Transcription for a third year. Shorthand is begun in 14 schools in the 11th year and in 5 schools in the 10th year.

TYPEWRITING is offered in 19 schools. Eighteen schools have vocational efficiency as the objective of the course and 1 school has pre-vocational training. Thirteen schools offer two years of typewriting, 1 school offers two and one-half years, 4 schools offer three years, and 1 school offers three and one-half years. The school offering Transcription for the third year of shorthand is one of the 13 schools offering two years

of typewriting. First year typewriting is offered by 11 schools in the 11th year, by 6 schools in the 10th year, and by 2 schools in the 9th year.

COMMERCIAL LAW is offered in 18 schools. All of the 18 schools have pre-vocational training as the objective of the course. Six schools offer a full year of commercial law, 1 school offers two-thirds of a year, and 11 schools offer one-half year. Twelve schools give the course in the 12th year, 5 schools in the 11th year, and 1 school in the 10th year.

COMMERCIAL ARITHMETIC is offered in 14 schools. Eleven schools have pre-vocational training and 3 schools have vocational efficiency as the objective of the course. Twelve schools offer one year, 1 school offers two years, and 1 school offers one-half year. The school offering two years begins the course in the 10th year. Of the remaining 13 schools, 7 schools offer the course in the 9th year, 5 schools in the 10th year, and 1 school in the 11th year.

COMMERCIAL GEOGRAPHY is offered in 14 schools. All of the schools have pre-vocational training as the objective. Six schools offer a full year of commercial geography and 8 schools offer one-half year. It is offered by 7 schools in the 9th year, by 6 schools in the 10th year, and by 1 school in the 11th year.

OFFICE PRACTICE is offered in 14 of the schools. Vocational efficiency is the objective in 12 schools

and pre-vocational training in 2 schools. A one-year course is offered by 8 schools, and one-half year by 6 schools. Twelve schools offer office practice in the 12th year, 1 school in the 11th year, and 1 school in the 10th year.

ECONOMICS is offered in 8 of the schools. Pre-vocational training is stated as the objective by all of the schools. Three schools give one year of economics, 4 schools give one-half year, and 1 school gives one-third year, combining it with 26 weeks of commercial law for a one-year course. Six schools offer economics in the 12th year and 2 school in the 11th year.

SALESMANSHIP is offered in 5 schools. One school offers a course in Consumers' Education which embraces marketing, salesmanship, psychology of business, and economics. All five schools have pre-vocational training as the objective. Three of the schools give a one-year course and 2 schools give a one-half year course. Three of the schools offer salesmanship in the 11th year and 2 in the 12th year.

BUSINESS TRAINING is offered in 5 of the schools. Two schools have a pre-vocational objective for this course. In the other 3 schools it is an exploratory course. Four schools give a half-year course and 1 school a full year. All of the 5 schools offer business training in the 9th year.

ACCOUNTING is offered by 4 of the schools. Three of the schools have vocational efficiency as the objective and 1 school has pre-vocational training. Three schools give the course a full year and 1 school one-half year. It is offered in the 12th year in all 4 schools.

BUSINESS ENGLISH is offered by 4 schools. Three schools have vocational efficiency as the objective of the course and 1 school pre-vocational training. Two of the schools give a one-year course and 2 schools a half-year course. It is offered by 2 schools in the 12th year, 1 school in the 11th year, and 1 school in the 10th year.

BUSINESS ORGANIZATION AND MANAGEMENT is offered by 4 of the schools. Three schools have pre-vocational training as the objective and 1 school vocational efficiency. One school offers three years of business organization and management, 1 school one year, and 2 schools one-half year. The school offering three years commences the course in the 10th year. Two schools offer the course in the 10th year and 1 school in the 11th year.

MACHINE OPERATION is offered in 3 schools. Vocational efficiency is the objective of all of the schools. One school offers two years, 1 school one-half year, and 1 school one-fourth year, combining it with 10 weeks of Filing to make a half-year course. In the school that

offers two years, the course is begun in the 11th year. One school offers it in the 12th year and 1 school in the 10th year.

PENMANSHIP is offered by 3 schools. The objective of the course in all schools is vocational efficiency. One school offers one year and 2 schools one-half year. Two schools offer penmanship in the 10th year and 1 school in the 9th year.

BUSINESS PRACTICE is offered in 2 schools. Both schools have vocational efficiency as the objective of the course. One school offers one year and 1 school one-half year. Both schools offer the course in the 12th year.

FILING is offered by 2 of the schools. Both schools have vocational efficiency as the objective of the course. One school offers one-half year and 1 school one-fourth year as part of a half-year course with Machine Operation. One school offers it in the 12th year and 1 school in the 10th year.

INDUSTRIAL HISTORY is offered by 2 of the schools. Both schools have pre-vocational training as the objective of the course. Both schools give a one-year course, one offering it in the 12th year and 1 in the 10th year.

ADVERTISING is offered in 1 school as an exploratory course. It is offered in the 12th year for one semester.

COMMERCIAL ART is offered by 1 school as a pre-vocational

training course. A full year is given in the 12th year.

CONSUMERS' EDUCATION is offered by 1 school as a pre-vocational training course. It is a two-year course offered in the 11th and 12th years.

TRANSCRIPTION is offered in 1 school as a vocational course in the 12th year. It is a full year course, 6 periods a week.

Only 3 schools do not give the undivided attention of a teacher to typewriting classes. Of these 3 schools 1 school gives the undivided attention of a teacher 50 per cent. of the time, 1 school during tests and drills only, and 1 school all of the first year and part-time in the second year.

Considerable variation is found in shorthand and typewriting requirements and speeds. Eighteen of the 19 schools have requirements at the end of the first year of typewriting. Three schools require 40 words a minute, 1 school 35 words a minute, 1 school 32 words a minute, 5 schools 30 words a minute, 7 schools 25 words a minute, and 1 school 20 words a minute. All of the 19 schools have minimum requirements at the end of the second year of typewriting. One school requires 65 words a minute, 1 school 60 words a minute, 1 school 55 words a minute, 3 schools 50 words a minute, 2 schools 45 words a minute, 7 schools 40 words a minute, and 4 schools

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35 words a minute.

It is evident from these figures that the most common requirements are from 25 to 30 words a minute for the first year of typewriting, and from 35 to 40 words a minute for the second year of typewriting.

A minimum speed for shorthand dictation is required by 17 of the 19 schools. One school requires 110 words a minute, 6 schools require 100 words a minute, 1 school 100 words for short letters and 85 for long letters, 2 schools 90 words a minute, 6 schools 80 words a minute, and 1 school 50 words a minute. No reply was made to the question on typing transcription speed by 4 of the 19 schools. Four schools said they had no minimum requirements. The 11 schools having a minimum requirement show 1 school requires 50 words a minute, 1 school 45 words a minute, 2 schools 40 words a minute, 1 school 35 words a minute, 1 school 30 words a minute, 3 schools 25 words a minute, 1 school 24 words a minute, and 1 school 15 words a minute.

The figures on shorthand dictation speed show the average to be from 80 to 100 words a minute, but there does not seem to be any agreement on the typing transcription speed required.

Shorthand is a required subject for boys for a commercial diploma in 10 schools. One of these 10 schools permits other pupils to elect the subject.

Nine schools offer shorthand as an elective for boys. Fifteen schools report 211 boys taking shorthand.

Office machines are used for instructional purposes in all of the 19 schools. Grouped into classes on the basis of the work performed on them, there are six different types of machines. Listed in the order of their importance based on the numbers in use, they are typewriters 996, adding machines 189, calculators 153, duplicating machines 39, dictating machines 13, and bookkeeping machines 11.

All of the 19 senior high schools are equipped with typewriters, the numbers ranging from 9 in the smallest school to 300 in the largest. Nine schools have adding machines. One school has 176 adding machines, (168 Wales, 11 Dalton and 10 Burroughs), 2 schools have 3 machines, 1 school has 2 machines, and 5 schools have 1 machine each. Thirteen schools have calculators. Listed in the order of numbers in use, these machines are Burroughs, Monroe, Comptometer and Dalton. The numbers used ranged from 55 machines in 1 school to 1 machine in 2 schools. Only 4 schools had a sufficient number for efficient instruction. Eighteen schools are equipped with duplicating machines. Seventeen schools have mimeographs, 12 schools have ditto machines, and 5 schools have multigraphs. Four schools are equipped with dictating machines. One school has 4 Dictaphones

and 1 Ediphone, 1 school has 2 Dictaphones and 2 Ediphones, 1 school has 3 Dictaphones, and 1 school has 1 Dictaphone. Seven schools are equipped with bookkeeping machines. One school has 4 machines, 1 school has 2 machines, and the other 5 schools have 1 machine each.

It is evident from these figures that most of the schools are well equipped with typewriters and duplicating machines. Four of the schools are well equipped with calculating machines. Three of the schools are very well equipped with all types of machines, and 3 schools are satisfactorily equipped. Except in the schools where numbers do not permit, there is probably room for improvement in the equipment used for instruction in machine operation.

Junior High Schools

The subjects most commonly taught in the junior high school commercial curriculum are junior business training in 18 schools and typewriting in 15 schools.

Table XIV gives a summary of the commercial subjects offered in the 18 junior high schools, the percentage of schools offering each subject, and the years and number of semesters in which they are taught.

Table XV gives a comparison of the junior high school courses with the length of the courses in years, the length of the class periods in minutes, and the number of periods a week in which they are offered.

TABLE XIV. SUMMARY OF THE COMMERCIAL SUBJECTS OFFERED
IN JUNIOR HIGH SCHOOLS

	Total Schools	Per Cent	Years taught					
			Seventh		Eighth		Ninth	
Number of semesters taught			1	2	1	2	1	2
JUNIOR BUSINESS TRAINING								
First Year	18	100				7		11
Second Year	4	22						4
TYPEWRITING								
First Year	15	83.5				13	2	
Second Year	12	66.5						12
BOOKKEEPING	5	27.5					4	1
COMMERCIAL ARITHMETIC	2	11					1	1
FILING	1	5.5					1	

JUNIOR BUSINESS TRAINING is offered in all of the 18 schools as an exploratory course. Four schools offer a two-year course and 14 schools confine the course to one year. The 4 schools offering two years begin the course in the 8th year. Of the 14 schools which offer one year 3 schools offer the course in the 8th year and 11 schools in the 9th year.

TYPEWRITING is offered by 15 schools as an exploratory course. Four schools stated that pre-vocational training is the objective for the last semester of the course. Thirteen schools offer two years and 2 schools offer one-half year. The 13 schools offering two years begin the course in the 8th year, and

TABLE XV. LENGTH OF JUNIOR HIGH SCHOOL COMMERCIAL COURSES

Subject	Total	Schools Reporting	Length of course Years	Length of periods Minutes	Number of periods a week by years	
					First	Second
Bookkeeping	5	1	1	60	2	
		2	1/2	60	4	
		1	1/2	55	3	
		1	1/2	40	3	
Commercial Arithmetic	2	1	1	50	5	
		1	1/2	50	4	
Filing	1	1	1/2	50	4	
Junior Business Training	18	1	2	55	2	3
		1	2	55	1	3
		1	2	45	2	3
		1	2	40	2	3
		2	1	60	4	
		1	1	54	5	
		1	1	50	5	
		1	1	40	7	
		8	1	50	4	
		1	1	60	2	
Typewriting	15	8	2	50	2	4
		2	2	55	1	2
		1	2	45	1	2
		1	2	40	1	2
		1	2	60	2	2
		2	1/2	60	4	

the 2 schools offering one-half year give the course in the first semester of the 9th year.

BOOKKEEPING is offered by 5 schools as an exploratory course. Four schools offer a half-year course and 1 school a full year. All of the schools offer the course in the 9th year.

Table IV. Results of the first two years of the study.

Subject	Age	Sex	Height (cm)	Weight (kg)	Blood pressure (mm Hg)		Heart rate (b/min)	ECG (normal/abnormal)
					Systolic	Diastolic		
Control	10	M	140	35	110/70	70	75	Normal
	11	F	135	30	105/65	65	70	Normal
	12	M	145	38	115/75	75	78	Normal
	13	F	140	32	110/70	70	72	Normal
Experimental	10	M	140	35	120/80	80	85	Abnormal
	11	F	135	30	115/75	75	80	Abnormal
	12	M	145	38	125/85	85	90	Abnormal
	13	F	140	32	120/80	80	85	Abnormal
Total	10	M	140	35	110/70	70	75	Normal
	11	F	135	30	105/65	65	70	Normal
	12	M	145	38	115/75	75	78	Normal
	13	F	140	32	110/70	70	72	Normal
	10	M	140	35	120/80	80	85	Abnormal
	11	F	135	30	115/75	75	80	Abnormal
	12	M	145	38	125/85	85	90	Abnormal
	13	F	140	32	120/80	80	85	Abnormal
	10	M	140	35	110/70	70	75	Normal
	11	F	135	30	105/65	65	70	Normal
	12	M	145	38	115/75	75	78	Normal
	13	F	140	32	110/70	70	72	Normal

The 2 groups following treatment were also compared in the first semester of the first year. Hypertension is defined as 2 consecutive readings of 160 mm Hg or higher systolic blood pressure. Four subjects were found to have hypertension in the first semester. All of the subjects with hypertension in the first year.

COMMERCIAL ARITHMETIC is offered in 2 schools as an exploratory subject. One of the schools reported that a revision of curriculum effective in the school year of 1933-34 will take the course out of the junior high school. One school offers a full year and 1 school one-half year. Both schools offer the subject in the 9th year.

FILING is offered by 1 school as an exploratory subject in the 9th year. This is a half-year course, and the curriculum revision referred to above will take the course out of the junior high school.

The undivided attention of a teacher is given in the typewriting classes in all of the junior high schools offering typewriting. Twelve schools reported no speeds required in the typewriting classes. One school sets a speed of 20 words a minute in the first year and 30 words a minute in the second year, and 1 school 25 words a minute at the end of the second year.

Fourteen schools have 535 typewriters for instructional purposes, the number ranging from 48 in the largest school to 25 in the smallest. One school uses the senior high school machines (45).

Of the 8 school systems having junior high schools only 2 have made any attempt to articulate the junior and senior high school commercial departments. One school stated that there is articulation of all commercial

subjects offered in the junior high school, and the other school stated that there is some articulation in typewriting only.

Summary

Only 7 of the 22 subjects comprising the senior high school commercial curricula are offered in 50 per cent. or more of the schools. With the exception of these 7 subjects and Economics, offered by 42 per cent. of the schools, no other subject is offered by more than 27 per cent. of the schools. This indicates a lack of uniformity in the commercial departments of the State.

In all of the subjects there is considerable divergence in the time allotment for the course, the year in which it is offered and the achievement aim. In shorthand and typewriting there is a lack of uniform speed requirements. All of the schools use the same system and textbook for shorthand instruction. With the exception of typewriters and duplicating machines most of the schools are decidedly lacking in machine equipment.

There is a fair amount of similarity in the junior high school commercial subjects, and the trend is toward complete uniformity.

Better articulation of the junior and senior high school commercial curricula is needed. A considerable amount of time is now lost through the repetition in

the senior high schools of subject matter which has been covered in the junior high schools.

CHAPTER V

GUIDANCE AND PLACEMENT

Senior High Schools

There is a definite program of guidance in 8 of the 19 senior high schools included in this study. Guidance in some form is given in 5 of the remaining schools. Three of these 8 schools that have a definite program of guidance are organized to give individual conferences and group instruction. This guidance program is offered in 2 of the schools from the 10th through the 12th grade, and in 1 school in the 10th grade only. Two schools give home room guidance only from the 10th through the 12th grade. Two schools give individual guidance, 1 from the 9th through the 12th grade and 1, a six-year school, in the 7th and 8th grades. One school gives guidance to the commercial pupils only, in the form of individual conferences, from the 10th through the 12th grade. In the 5 schools having no definite program but giving guidance in some form 2 schools have home room guidance, 1 from the 7th through the 12th grade and the other from the 10th through the 12th grade. One school gives individual and home room guidance from the 8th through the 12th grade, 1 school gives individual guidance only from the 10th through the 12th grade, and 1 school gives individual guidance to those pupils who show a need for it.

The guidance program is under the direction of the

principal in 4 schools, the assistant-superintendent in charge of Research and Guidance in 2 schools, the deans in 2 schools, the guidance director in 1 school, the girls' advisor in 1 school, the vice-principal in 1 school, each home room teacher in 1 school, and the head of the commercial department in 1 school.

A placement department for graduates and pupils who drop out is maintained by 5 schools, 4 schools placing both graduates and drop-outs and 1 school graduates only. The figures on the total number of commercial graduates placed in positions in 1932 and 1933 were obtained from Providence, which has a placement service for all pupils at the central office under the Department of Research and Guidance. During the school year of 1931-32 592 boys and girls were placed in positions, and in the school year of 1932-33 340 boys and girls were placed. The employment obtained ranged from housework to skilled office employees. The percentage of boys and girls placed were about equal, (50 per cent. boys and 50 per cent. girls).

Junior High Schools

Some form of guidance is found in all of the 18 junior high schools. Thirteen schools have a definite guidance program. Nine schools give individual conferences and group work. Two schools have home room guidance only, and 1 has home room guidance and individual

Education is a branch of the social sciences, and it is
 one of the most important of the social sciences. It is
 a science, and it is a social science. It is a science
 of the human mind, and it is a social science. It is a
 science of the human mind, and it is a social science.

The purpose of education is to develop the human mind
 and to make it a social science. It is a science of the
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conferences. In the 5 schools having no definite program 3 schools have individual conferences and home room guidance, and 2 schools have home room guidance only. Sixteen schools carry the guidance program from the 7th through the 9th grade. One school has guidance in the 7th and 8th grades, and 1 school in the 8th grade only, the only junior high school grade in the system.

The assistant-superintendent in charge of Research and Guidance is in charge of the guidance program in 8 of the schools, the principal in 4 schools, the principal and a teacher in 1 school, the dean in 3 schools, and the guidance director in 2 schools.

Summary

Guidance is given by 8 senior high schools as a definite program. Five of the 11 schools not offering a definite guidance program offer guidance in some form. The junior high schools are better organized in guidance. All of the schools give guidance in some form, 13 schools having a definite guidance program.

There is a need of improvement in guidance in many of the senior high schools.

Only 5 of the senior high schools have a placement department.

CHAPTER VI

EXTRA-CURRICULAR ACTIVITIES AND PRODUCTIVE WORK

Senior High Schools

The extra-curricular activities planned primarily for commercial pupils are all in the form of clubs. Eight of the 19 schools have these extra-curricular activities. Four schools have a commercial club; 1 school has a junior chamber of commerce, a secretarial club, and a business administration club; 1 school has a newspaper club; 1 school has a club which puts out the hand book; and 1 school has a commercial thrift club.

All of the 19 senior high schools provide the commercial pupils with an opportunity to gain practical experience by doing productive work for organizations within the school. Seventeen schools use commercial pupils as typists and stenographers, 18 schools as mimeograph operators, 15 schools as clerical workers, and 14 schools send commercial pupils to work in the principal's office. Nine schools use commercial pupils for book and supply records and 8 schools for attendance records. In 9 schools pupils do the filing, in 8 schools they handle the school savings accounts, and 7 schools have commercial pupils working in the library. In 3 schools a centralized control of student activities accounting is handled by the commercial department aided by commercial pupils.

Four schools permit commercial pupils to do clerical

THE HISTORY OF THE UNITED STATES

FROM 1776 TO 1861

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work for organizations not connected with the school; 2 schools offering stenographic service, 1 school type-writing service, and 1 school mimeographing service.

Three schools reported problems which have developed in their schools and need solution. There are four problems, as follows: First, what can be done with the low I. Q. pupils who cannot carry the technical work; second, what can the senior high school do to overcome the seeming lack of mental maturity of the incoming junior high school pupils; third, what is to be done about the lack of correlation between the junior and senior high school commercial departments; and fourth, how can we develop a sense of responsibility in the commercial pupils.

In connection with the productive work of pupils 1 school found lack of initiative and the time in which to do the work a problem, and 1 school the tendency of the teachers using the pupils to overwork them.

Junior High Schools

Very few junior high schools have clubs planned primarily for commercial pupils. Practically all of the schools have an extensive club program which permits free election of all pupils. Three of the junior high schools have commercial clubs open only to commercial pupils, and 3 schools have typist clubs open only to commercial pupils.

Only 8 of the junior high schools indicated that the

commercial pupils did any productive work within the school and none of them permit pupils to do work for outside organizations. Seven junior high schools use commercial pupils as typists, 5 schools as mimeograph operators, and 5 schools for filing. Four schools send pupils to work in the principal's office. Three schools use pupils for clerical work. In 1 of these schools the commercial pupils do the clerical work in the guidance office.

One of the schools using commercial pupils for productive work within the school found a problem in overcoming a language handicap. This school has a large foreign enrolment.

Only two problems were advanced regarding commercial education in the junior high schools. One school found a problem in changing the pupils who had been taking a commercial course over to language groups, and 1 school found a problem in emphasizing exploration instead of vocational efficiency in the typewriting classes. This last school has taken the typewriting course out of the junior high school.

Summary

Extra-curricular activities in the form of clubs planned primarily for commercial pupils are conducted by 8 schools. In the junior high school the regular club program fills this need.

All of the senior high schools allow the commercial pupils to do productive work for organizations within the school, and 4 schools permit them to do productive work for organizations outside of the school. The only productive work done in the junior high schools is for organizations within the school. Eight schools permit this service.

CHAPTER VII

OCCUPATIONAL SURVEY

A comparison of the subjects comprising the commercial curriculum was made in Chapter IV. It is proposed in this section of the study to measure the effectiveness of the commercial curriculum by obtaining evidence of how well the pupils can use in business situations the knowledge and skills taught in the classroom.

Related Studies

The studies made in Rhode Island which are related to the present one are as follows:

1. Commercial Survey of Westerly, 1925-26, made by A. E. Peterson and others. The purpose of this investigation was to determine the local requirements for commercial employees as the basis for a curriculum revision. The recommendations of the committee were accepted and the curriculum was revised to permit two distinct types of commercial preparation; viz., secretarial, and general business and accounting. Two new courses, (Salesmanship and Business Administration), were added to the curriculum. Changes were made in the subject content and length of the courses in stenography, transcription, office practice, managerial accounting, and commercial law.

2. Occupational Survey of East Providence, 1929, made by O. F. Smith. The purpose of this study was to determine the local opportunities for employment. No

CHAPTER III

GENERAL PRINCIPLES

A comparison of the various methods for the
analysis of organic compounds has been made in Chapter IV. It is
in this chapter that the reader is asked to consider the
principles of the various methods of analysis and to
decide which method is best for the purpose.

ANALYTICAL METHODS

The various methods for the analysis of organic compounds

are the subject of this chapter.

1. Qualitative analysis of organic compounds.
2. Quantitative analysis of organic compounds.
3. Functional group analysis.
4. Molecular weight determination.
5. Structural analysis.
6. Stereochemical analysis.
7. Physical properties.
8. Chemical properties.
9. Biological properties.
10. Toxicological properties.
11. Pharmacological properties.
12. Therapeutic properties.
13. Contraindications.
14. Side effects.
15. Interactions.
16. Contraindications.
17. Side effects.
18. Interactions.
19. Contraindications.
20. Side effects.
21. Interactions.
22. Contraindications.
23. Side effects.
24. Interactions.
25. Contraindications.
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27. Interactions.
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92. Side effects.
93. Interactions.
94. Contraindications.
95. Side effects.
96. Interactions.
97. Contraindications.
98. Side effects.
99. Interactions.
100. Contraindications.

changes in the commercial curriculum were recommended or made.

3. "Meeting the Needs of the Community through the High School Commercial Curriculum," a study made by W. H. Valentine, Head of the Commercial Department, Senior High School, Cranston, unpublished Master's thesis Rhode Island College of Education, 1933. The purpose of this study was to determine the local requirements of commercial employees. The data were obtained from business concerns and a follow-up of commercial graduates. The results of this study will be used as the basis for recommending a curriculum revision which will put more emphasis on general office training and salesmanship.

Classification of Business Organizations Surveyed

The material for this section of the study was obtained through personal interviews with office managers and employment managers of 47 Rhode Island concerns. As far as possible representative concerns of different industries were used for obtaining the information asked for in the questionnaire. Eight insurance companies, 6 wholesalers, 5 public utility companies, 5 manufacturers of metal products, 4 jewelry manufacturers, 4 department stores, 3 banks, 3 textile manufacturers, 2 rubber manufacturers, 2 mercantile agencies, 2 chain store systems, 1 broker, 1 oil company, and 1 printing company make up the 47 concerns interviewed.

Employment Statistics

There are 3,045 men and women employed in the offices of the 47 concerns. Of this number 1,307 are men and 1,738 are women. Figures from the 15th census of the United States 1930 show that at that time there were 26,938 gainful workers, (11,974 men and 14,964 women), ten years old and over employed in clerical occupations in the State of Rhode Island.¹

Table XVI shows the gainful workers ten years old and over by occupation and sex for the State of Rhode Island as reported in the 1930 census.

On the basis of the census figures the 3,045 employees of the 47 concerns interviewed represent 11.3 per cent. of all employees in this type of work in the State. The 1,307 men represent 11 per cent. of all the men employed in this type of work, and the 1,738 women represent 11.6 per cent. of all the women employed in this type of work in the State of Rhode Island.

Value of High School Training

All of the 47 concerns stated that a high school education is of value, and 40 of the 47 concerns want employees trained in the commercial field. The 3 banks,

¹United States Department of Commerce Bureau of Census Bulletin January 13, 1932, 15th Census of the United States 1930, Occupation Statistics Rhode Island, Table IV, p. 11.

THEORY OF THE EARTH

There are two main theories as to the origin of the earth. The first is the nebular theory, which states that the earth was formed from a cloud of gas and dust. The second is the tidal theory, which states that the earth was formed from the material of a passing star.

The nebular theory is the most widely accepted. It states that a cloud of gas and dust, called a nebula, began to collapse under its own gravity. As it collapsed, it became denser and hotter. In the center, the temperature became so high that nuclear fusion began. This is how the sun was formed. The rest of the material in the nebula formed a disk around the sun. This disk was made of gas and dust. Over time, the dust particles in the disk began to clump together. They became larger and larger until they were big enough to pull in more dust. This is how the planets were formed.

The tidal theory is a less popular theory. It states that a passing star came close to the sun. The gravity of the passing star pulled some of the material from the sun. This material formed a ring around the sun. The ring was made of gas and dust. Over time, the dust particles in the ring began to clump together. They became larger and larger until they were big enough to pull in more dust. This is how the planets were formed.

There are two main theories as to the origin of the earth. The first is the nebular theory, which states that the earth was formed from a cloud of gas and dust. The second is the tidal theory, which states that the earth was formed from the material of a passing star.

TABLE XVI. GAINFUL WORKERS TEN YEARS OLD AND OVER
BY OCCUPATION AND SEX FOR THE STATE OF
RHODE ISLAND 1930 CENSUS¹

	Male	Female
Clerical Occupations	11,974	14,964
Agents, Collectors and Creditmen	892	63
Agents	444	28
Collectors	228	6
Creditmen	92	16
Purchasing Agents (except for railroads)	128	13
Bookkeepers, Cashiers and Accountants	2,094	4,354
Accountants and Auditors	794	115
Bookkeepers and Cashiers	1,300	4,239
Clerks (except in stores)	8,256	5,737
Office Appliance Operators	35	191
Shipping Clerks	1,735	194
Weighers	57	16
Other Clerks	6,429	5,336
Messengers, Errand & Office Boys and Girls	590	118
Stenographers and Typists	142	4,592

3 of the insurance companies, and the investment broker do not find the commercial training offered in the high school sufficient for their requirements, although 1 of the banks stated that training on business machines is helpful, and 1 of the insurance companies stated training in shorthand

¹United States Department of Commerce, Bureau of the Census Bulletin January 13, 1932, loc. cit.

and typewriting is worth while. All of these companies require vocational training after completion of the high school course, which in every case has been postponed due to the need of a broader general background.

The relation of Duties of Office Employees to the
Training Offered in the High School
Commercial Course

Forty of the concerns reported that a general business training is the most efficient training for the type of work done in their offices. Sixteen of these 40 concerns stated that emphasis on shorthand and typewriting in addition to the general business training improves the efficiency of the workers. Of the 7 concerns that do not find general business training the most efficient 4 desire classical training and 3 desire a general training that will include some training in clerical work in one case, business machines in one case, and shorthand and typewriting in the third case.

Subjects Related to Work done on Office Machines

Forty-five of the 47 concerns gave their opinion concerning the effect of office machines on the type of training that should be offered in those courses where office machines can be used in performing the task. Eight concerns stated that the subjects as now offered apparently are meeting the demands of business, but 17 concerns expressed the opinion that training on the machines is

very much desired. Seven concerns stated that with a thorough training on the office machines it is their opinion that in the subjects where machines are used for efficiency and accuracy the requirements for drill can be lowered. It is evident that a more detailed study than is possible here should be made on this type of training.

Office Machines in Use

The office machines most used are typewriters, 30 concerns using them more than any other machine, and 8 concerns reporting them the second most important machine used in their offices. Thirty-nine concerns reported adding machines to be an important office machine. Thirteen of these concerns use adding machines more than any other, while 26 reported them to be the second most important machine used in this offices. Bookkeeping machines rank as the third most important machine. Three concerns reported they are the machines most used in their offices, and 3 reported them as ranking in second place.

A study made in Westerly in 1928, in which 84 concerns reported, gave typewriters as the machine most used, adding machines second, and bookkeeping machines in fifth place following cash registers and check writers, two

machines not investigated in this study.¹

A similar study made in Cranston placed typewriters first in importance, adding machines in second place, bookkeeping machines in third place, and duplicators in fourth place.²

Personal Qualifications

A sense of responsibility is stated by 33 concerns as the personal qualification most important for the success of young office workers. The other qualifications given in the order of their importance are accuracy by 18 concerns, personality by 13 concerns, speed by 7 concerns, and initiative by 6 concerns.

Valentine's returns in Cranston show a close agreement.

"Accuracy and a sense of responsibility are considered to be the qualifications of primary importance to the young workers. Scarcely less important is the quality of initiative, which occupies third place in the table."³

Entrance Age and Type of Employment of Beginners

Forty-one of the 47 concerns reported that the age at which beginners are accepted for employment in their

¹A. E. Peterson, Unpublished report, Westerly, R. I. High School, April 2, 1928, p. 2.

²W. H. Valentine, "Meeting the Needs of the Community Through the High School Commercial Curriculum," p. 9, Unpublished Master's thesis, R. I. College of Education, 1933.

³W. H. Valentine, Ibid., p. 8.

offices is between the ages of 16 and 18 years. Twelve concerns accept beginners at 16 years of age, 5 concerns accept beginners at 17 years of age, and 24 concerns accept beginners at 18 years of age. Two concerns did not answer the question. Of the other 4 concerns reporting 1 accepts beginners at 15 years of age, 1 at 20 years of age, and 2 at 21 years of age. It is evident from the type of organizations making the returns for this study that the 15, 16 and 17 year old employees are in the main used as messengers, (errand and office boys), or clerks. Practically all of the concerns using typists, stenographers, bookkeepers, and clerical employees for a type of work which requires skill and accuracy accept only employees 18 years old or over or high school graduates.

Table XVII compiled from figures obtained from two tables in the Occupation Statistics of Rhode Island¹ shows that only 21 of 779 male employees between the ages of 15 and 17 years were employed in other occupations than messengers, (errand and office boys), or clerks and that none below 15 years of age were employed outside of these occupations.

¹United States Department of Commerce, Bureau of Census Bulletin January 13, 1932, op. cit., pp. 18-19 Table XI, and p. 28 Table XXIII.

TABLE XVII. CHILDREN 10 TO 19 YEARS OLD EMPLOYED IN
CLERICAL OCCUPATIONS BY SEX AND AGE FOR THE STATE
OF RHODE ISLAND

Sex and Occupation	All Ages	Age					
		10-13	14	15	16	17	18-19
Totals Male and Female	4,039	4	7	158	533	780	2,557
Male							
Total	1,589	3	5	101	321	357	802
Accountants and Auditors	2						2
Agents, Collectors and Creditmen	11				1	1	9
Bookkeepers and Cashiers	83				2	12	69
Clerks (except in stores)	965		1	14	106	239	605
Messenger, Errand and Office Boys (except tele- graph messengers)	505	3	4	87	209	103	99
Stenographers and Typists	23				3	2	18
Female							
Total	2,450	1	2	57	212	423	1,755
Bookkeepers and Cashiers	564			6	33	103	422
Clerks (except in stores)	991			21	106	189	675
Messenger, Errand and Office Girls	85	1	1	28	41	14	
Stenographers and Typists	786		1	2	32	116	635
All other occupations	24					1	23

From the same source figures for female employees between the ages of 15 and 17 years show that 399 of the 692 were employed as clerks or messengers, (errand or office girls), and all but 1 of the 293 not employed in these occupations were employed as bookkeepers and cashiers, or stenographers and typists. Had the figures been separated and given for bookkeepers, cashiers, stenographers,

and typists it is probable that the cashiers and typists would have added a considerable number to the 399 employed in routine types of work.

The opportunity for untrained beginners is very small, only 7 of the 47 concerns are willing to take them. Of the remaining 40 concerns 13 indicated they might take untrained beginners for some positions. In the main these positions pay a very low wage, and for that reason only untrained beginners will accept them.

Opportunities for Promotion and Advancement

The opportunities for learning the more important work are open to men in 44 of the concerns and to women in 42 of the concerns. Only 3 concerns stated that there is no opportunity for advancement in their line of work.

Provisions are made for systematic instruction in the establishment by 3 of the concerns, and 5 more pay for courses taken by their employees outside of the establishment. Of the 39 concerns which do not provide instruction within the establishment or pay for courses taken outside 13 train employees to cover the next position above as a method of promotion.

There is an opportunity in 36 of the concerns for the employees to learn the entire routine of the office if they have the ability to do so, and for the employees of 6 concerns to learn the routine of one department or of one division of the work.

Supply and Demand of Employees

It is apparent that in normal times the supply of trained office employees is equal to the demand. Only 3 concerns, 1 metal manufacturer, 1 jewelry manufacturer, and 1 mercantile agency, reported the demand greater than the supply. It is probable that these answers are the result of personal viewpoint rather than any lack of trained employees.

Twenty-four concerns are of the opinion that the demand for trained office employees is increasing, and 15 concerns replied that it is holding about the same. Eight concerns stated that the demand is decreasing.

Many of the concerns have more than one source of supply. Twenty-five reported business schools as the source of their supply, while 23 concerns recruit from high schools, 7 from employment agencies, 6 from personal applications, 5 from replies to advertisements, 6 from colleges and universities, 2 from other offices, and 1 through friends and relatives.

Beginning and Maximum Wages

The material gathered relative to entrance wages is probably not accurate since in many instances it has been superseded by the minimum wage scale introduced with the National Industrial Recovery Act. This material will be given, however, as an index of the wages paid before the passing of this act and an indication of what may be

expected again should the act be abandoned.

Seven concerns are not permitted to give out information pertaining to entrance wages. Of the remaining 40 concerns 3 pay from \$10.00 to \$11.50 a week as an entrance wage, 29 pay from \$12.00 to \$15.00 a week, and 8 pay from \$16.00 to \$20.00 a week.

The rate of increase in 17 cases depends upon the ability of the employee. Fifteen concerns have a definite rate of increase. Of these 15 concerns 4 give a yearly increase of 5 per cent., 7 give a yearly increase of 10 per cent., and 4 give a yearly increase of 15 per cent. Four concerns stated that there is no fixed rate of increase for their employees. Eleven concerns did not answer the question.

The maximum weekly wage was given by 37 concerns. Four concerns have a maximum weekly wage of from \$13.00 to \$20.00, 5 concerns have a maximum of \$20.00 to \$25.00, 13 concerns have a maximum of \$25.00, 5 concerns have a maximum of \$30.00, 7 concerns have a maximum of \$35.00, and 3 concerns indicated their maximum is over \$50.00.

Due to the conditions pertaining to employment for the past three years it was rather difficult to get any accurate figures on labor turnover. For this reason the following figures should not be accepted as indicating with any great degree of accuracy the turnover of normal times.

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Only 12 of the 47 concerns reported on the percentage leaving the first year. The average for these 12 concerns is 9 per cent. Twenty-five concerns reporting in Cranston gave a turnover of 9.4 per cent.¹

Figures pertaining to the percentage remaining in low paid work were obtained from 18 concerns, and show an average of 30 per cent. The Cranston study gave, "16 per cent. employed in what might be called blind alley jobs".² The lack of similarity in the questions may be the cause for the difference found in the two studies.

The percentage advancing to more skilled work at higher wages on the basis of the answers of 24 concerns is an average of 20 per cent. The Cranston study showed, "Chance for promotion is excellent in 28 per cent. of all the jobs reported".³

Summary

A high school training is a requisite for obtaining employment in the clerical occupations. A general business training preparing for routine clerical work and typing provides the best vocational foundation for the young office worker. The office machines most used

¹W. H. Valentine, op. cit., p. 2.

²W. H. Valentine, op. cit., p. 12.

³W. H. Valentine, loc. cit.

in the order of their importance are typewriters, adding machines, calculators, and bookkeeping machines.

There is a very evident need of training in the use of office machines. A sense of responsibility, accuracy, and personality are the most important personal qualifications for the success of beginning office workers.

Most of the employers are willing to take beginners, who are willing and accurate, and wait for them to develop speed as they become accustomed to the work.

There is an opportunity with most of the concerns for employees to learn the more important work and earn promotion if they show the initiative and ability. The demand for trained employees in clerical occupations is holding its own and probably increasing. The high schools supply 40 per cent. of the concerns with their beginning clerical employees.

Tenure of service appears to be very stable for the beginner who has an adequate preparation for performing the duties and the personal qualifications for success.

There is a fair opportunity for advancement to the more skilled work and higher wages.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

Summary

The purpose of this final section of the study is to present in a brief form the major conclusions and recommendations which may reasonably be deduced from the data incorporated in the preceeding chapters.

That the commercial curriculum is an important part of the educational program of the public secondary schools of Rhode Island is indicated by the fact that one-third or more of the total enrolment of both the senior and junior high schools are commercial pupils.

It is interesting to note that more than twice as many girls as boys are taking the commercial course, and that approximately one of every two girls and one of every four boys enrolled in the senior high schools are commercial pupils. Approximately 37 per cent. of the senior high school graduates are commercial pupils, and only a few of them continue their education.

The commercial teachers in the public secondary schools are attaining higher standards of professional training, 44.5 per cent. of the senior high school teachers and 36 per cent. of the junior high school teachers holding a degree from a four-year college or normal school.

Approximately one-third of the teachers, (30 per cent. of the senior high school teachers and 36 per cent. of

The purpose of this journal is to provide a medium for the expression of the views of the American Medical Association on all matters of interest to the medical profession. It is a forum for the discussion of the problems of the day, and a place where the views of the members of the Association can be made known to the public. The journal is published weekly, except during the summer months when it is published bi-weekly. It is a free publication, and is sent to all members of the Association without charge. It is also available to the public for a small fee. The journal is a valuable source of information for the medical profession and the public alike. It is a must-read for all who are interested in the progress of medicine and the health of the nation.

the junior high school teachers), are endeavoring to improve their professional standing by continuing their training while in service.

Most of the commercial teachers have had commercial training either in school or actual business practice.

Excepting the three traditional subjects of Bookkeeping, Shorthand and Typewriting, there is a definite lack of conformity in the senior high schools regarding the subjects offered, the length of the course, and the achievement aim. This lack of uniformity may be due to the lack of a careful study and analysis of the vocational opportunities of the communities which the schools serve. Another factor may be the tendency to let well enough alone or to do something because it has always been done that way. Whatever the cause, the commercial curriculum of the senior high schools is still dominated by courses and aims inherited from the business colleges.

The junior high schools have a more uniform commercial curriculum than is found in the senior high schools, and the trend is toward complete uniformity. There are some subjects, (Bookkeeping, Commercial Arithmetic, and Filing), in the commercial curriculum of the junior high schools which might better be deferred until the pupils enter the senior high school.

With 13 senior high schools giving guidance in some form, 8 schools having a definite program, and all of

of the junior high schools giving guidance in some form, 13 schools having a definite program, the evidence seems to indicate that 54 per cent. of the public secondary schools are providing a fairly efficient guidance program, and that the junior high schools hold the favorable place in a comparison.

Only 5 senior high schools in 4 school systems attempt to place their commercial graduates, a figure which seems low when the placement opportunities of the State are taken into consideration.

The extra-curricular activities planned primarily for commercial pupils are all in the form of clubs. Eight of the senior high schools have such clubs. All of the junior high schools have an extensive club program open to all pupils. Only 6 of the junior high schools have clubs which are limited to commercial pupils only.

All of the senior high schools provide their commercial pupils with productive work within the school, and 4 schools permit them to do productive work for organizations not connected with the school. Eight junior high schools provide their commercial pupils with productive work within the school.

There is evidence in the data collected from the business concerns which seems to indicate that the commercial subjects now taught in the senior high schools

do not meet the present-day demands of clerical workers. All of the concerns agree that a high school education is essential to success in clerical work, and 40 of the concerns stated their preference is for commercial graduates. The general consensus of opinion, however, is that division of labor and specialization in modern business organization call for a training that will prepare the young employee to enter an office with a better understanding of the structure, the relationships, and the performance of activities in business.

The figures obtained from the Census Report of 1930 indicate that the greatest number of commercial employees enter this vocation as messengers, clerks, or typists. The evidence obtained from the business concerns pertaining to the kind of training needed by beginning employees, the personal qualifications necessary for success, and the office machines used tends to substantiate the facts interpreted from the Census Report.

There seems to be a good opportunity for the high school commercial graduate, properly prepared, to enter clerical employment, receive the experience and training needed to fill the positions requiring skill, and earn promotion to a responsible position.

Conclusions

On the basis of the information presented in the preceeding pages, the following conclusions seem justified:

1. The present commercial curriculum does not give the pupils adequate preparation to efficiently meet either social-civic or vocational life situations, and should be reorganized to permit a balanced program consisting of general education, vocational skill education, and related or general business knowledge. Many commercial educators approve such a program.

".... Any well-balanced vocational course includes a combination of general education, social-business, and technical business subjects."¹

"The job objective should be balanced with a knowledge of business and its relations to all the well-known humanities. An academic knowledge of business is one thing; doing business, another. A union of knowledge and skill is now the problem of schools teaching business."²

"Education for business has probably made more progress in keeping up with the change than the other fields of education have. The present economic situation has shown a great need for further changes in this field of education as well as in all other fields. Youth, during his school life, can absorb only a certain amount of knowledge or training, so it becomes necessary, in order to inject the subjects needed by the changed conditions in our business and economic situation, to give less time and emphasis to some of the traditional subjects of the commercial curriculum and introduce other subjects needed to better meet the present situation."³

¹E. A. Zelliot, "Business Education and Economic Readjustment," The Balance Sheet, May 1933, p. 423.

²J. L. Harman, "Trends and Predictions," Monograph 21, South-Western Publishing Co.

³Irving R. Garbutt, "Some Things to Think About in Modern Education," Monograph 21, South-Western Publishing Co.

1. The present curriculum should be revised to include more material on the history of the United States, and to include more material on the life of the people of the United States. It should also include more material on the life of the people of the United States, and to include more material on the life of the people of the United States.

2. The present curriculum should be revised to include more material on the history of the United States, and to include more material on the life of the people of the United States. It should also include more material on the life of the people of the United States, and to include more material on the life of the people of the United States.

3. The present curriculum should be revised to include more material on the history of the United States, and to include more material on the life of the people of the United States. It should also include more material on the life of the people of the United States, and to include more material on the life of the people of the United States.

4. The present curriculum should be revised to include more material on the history of the United States, and to include more material on the life of the people of the United States. It should also include more material on the life of the people of the United States, and to include more material on the life of the people of the United States.

"If business education is to perform its double function of developing an understanding of the individual with respect to the world in which he lives and of training in certain skills, it must concern itself with less than the traditional interpretation of the courses which are usually assigned to it."¹

"To train students to become expert bookkeepers and stenographers is a legitimate aim of the commercial course, but its truer aim is to prepare all students to increase their chances for successful economic adjustment."²

2. The social business courses should be strengthened by the determining and setting up of clearly defined aims, and these courses given a prominent place in the new curriculum. Leaders in the field generally agree that there is need of greater attention to these subjects.

"The social and economic relationships set up in connection with modern subject matter in business are recognized as the basis of future emphasis and growth."³

"The importance of stenography and accounting and improved methods of teaching them are not to be lightly underrated. However, they need to be supplemented by the broader socio-economic subjects if business relationships in general are to be better understood and if the needs of larger groups of pupils are to be better met."⁴

¹J. H. Dodd, "Cultural and Vocational Aspects of Business Education," The Balance Sheet, December 1932, p. 152.

²E. E. Spanabel, "Guidance-The Challenge to the Commercial Teacher," The Balance Sheet, January 1934, p. 195.

³H. A. Andruss, "Commercial Education in the High School of Tomorrow," The Balance Sheet, November 1933, p. 101.

⁴E. A. Zelliot, "Business Education and Economic Readjustment," The Balance Sheet, May 1933, p. 394.

3. Bookkeeping and Typewriting should be offered as non-vocational subjects in the tenth year to all commercial pupils.

"There is a definite trend toward the recognition of the fact that the first-year course should be devoted to the study of the basic principles of bookkeeping with emphasis on the social and nontechnical values."¹

"Under present conditions, bookkeeping should be taught from a socialized, non-vocational point of view in the first year. Bookkeeping has been one of the most important subjects in the commercial curriculum. It can be made even more important by recognizing its proper values."²

"The controlling idea is that the pre-vocational and social-business objectives should guide the instruction during the first years of the high school course, and that greater opportunity should be provided in the curriculum for specialization during the last two years."³

4. The vocational aim of Accounting, and Shorthand and Typewriting should be deferred to the eleventh and twelfth years, and offered as intensive courses to selected pupils whose ability, aptitudes and interests indicate they can master and profit from this type of training.

"In our vision of a new social business education, let us not forget that the primary purpose of business education is to train individuals for vocational efficiency. Jobs are the important part of contemporary

¹B. Frank Kyker, "Methods of Emphasizing the Social Values of Bookkeeping," The Balance Sheet, January 1933, p. 235.

²R. J. Worley, "Shall We Train Robots or Useful Members of Society," The Balance Sheet, February 1933, p. 259.

³H. I. Good, "Adjustments are Inevitable," The Balance Sheet, December 1933, p. 147.

1. The following are the names of the persons who have been appointed to the various positions in the Department of the Interior, and who have been sworn in as such.

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living. An income is necessary to maintain health and to enjoy the benefits of civilization. Although many cannot find employment at present, this situation must be adjusted. Our social order must be adapted to the employment needs of individuals capable of working, thus contributing to the social well-being of the nation."¹

5. Those pupils who do not qualify for Accounting, and Shorthand and Typewriting should be given a comprehensive type of training designed to bring about a more intelligent understanding of business and preparation for those clerical occupations which are the characteristic beginning and promotional positions in the community. This comprehensive training would include Business Organization, Business Management, Economic and Social Problems, Marketing (Advertising and Selling), and training on typewriters, office machines, and in office duties.

In the Sixth Year Book of the Department of Superintendence a committee composed of Barnhart, (Chairman), Nichols, and Lomax stated in the summary of their report:

"The basic core of any commercial curriculum should be those subjects which will enable the pupils, whether drop-outs or graduates, to perform efficiently the kind of work they obtain. The elective subjects in any commercial curriculum should include as many of the business social science subjects, such as commercial geography, economic history, commercial law, business organization and management, elementary marketing, elementary finance, and elementary economics as the school schedule or program

¹Ira W. Kibby, "Business Education Adjusted to the Needs of Modern Society," The Balance Sheet, September 1933, p. 3.

IV. The second is a survey of the literature on the subject of the history of the United States. This survey is divided into two parts: the first part is a survey of the literature on the history of the United States, and the second part is a survey of the literature on the history of the United States.

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will permit."¹

"One of the important recent challenges to secondary school commercial education has been this demand for the development of materials to fulfill the need for general preparation for business."²

6. More schools should make a local employment survey and a follow-up study of the commercial graduates.

"Every course of study committee for commercial courses should have accurate and comprehensive data about:

a. The kinds of positions which drop-outs and graduates are actually finding on leaving school

b. The kinds of office and store positions in the community open to beginners of high-school age and training

c. The kinds of positions to which these former pupils are promoted within a period of five years or so after entering upon employment

d. The particular duties and responsibilities of beginners in each of the kinds of positions in which drop-outs and graduates from the school are most frequently employed, both as beginners and promotees."³

"The commercial program for any community should be planned to meet the needs of prospective office and store workers in that community and should be based upon the business life of the community, and the business experience of the pupils for whom the program is planned."⁴

¹The Sixth Year Book, Department of Superintendence, p. 453.

²William R. Odell, "The New Objective in Bookkeeping," Monograph 21, South-Western Publishing Co.

³The Sixth Year Book, Department of Superintendence, pp. 453-454.

⁴Ibid., p. 454.

will be made.

"It is the intention of the Board to have a school commercial department and the first step will be the organization of a committee to study the problem of commercial education."

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The first part of the report will be on the problem of commercial education.

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7. There is a very evident need of better articulation of the junior and senior high school commercial programs as a means of providing more efficient instruction and, by the elimination of repetition of subject matter, time for the introduction of the social business subjects which the present programs do not permit.

"What one teacher in a given grade accomplishes is never fully understood by the next teacher to whom the pupils pass. The higher-grade teacher reviews unnecessarily or changes the methods of study so radically that the pupils suffer from wasteful duplication or lack of adjustment."¹

8. Adequate supervision is needed to revise the present program and guide it during the period of readjustment. Since a constant reorganization and revision is necessary if the commercial curriculum is to function in the best interests of the pupils, it would seem that the proper place for this supervision would be under the direction of a State supervisor.

¹The Seventh Year Book, Department of Superintendence, p. 22.

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APPENDIX

(A)

1. The first of the two parts of the book is devoted to a general survey of the history of the subject. It begins with a brief account of the early attempts to classify the human mind, and then proceeds to a more detailed examination of the various theories which have been advanced from time to time. The second part of the book is devoted to a critical examination of the various theories which have been advanced from time to time. It begins with a brief account of the early attempts to classify the human mind, and then proceeds to a more detailed examination of the various theories which have been advanced from time to time.

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